I CLAIM:

1. A tray for installing, on a tire mounted on a vehicle wheel, an oriented tire chain having side chains and cross chains, which tray comprises:

a base having a longitudinal axis and, at opposite ends of that axis, a rear end and a front, entrance end;

a rear wall and side walls projecting upwardly from the base;

a plurality of vehicle supports projecting upwardly from the base and being spaced from each other and from the side walls so as to define longitudinal channels and transverse channels for receiving and confining laid-out side chains and cross chains, respectively;

a well for receiving side chains and cross chains which have not been laid out;

an interior wall defining a compartment adjacent the well for receiving and protecting, from damage due to the weight of the vehicle, a U-shaped tool having spaced arms connected to the ends of the side chains.

2. A tray according to claim 1 wherein the interior wall defining the compartment is sufficiently high to protect the tool from damage by direct contact with the tire and to keep chain in the well from coming between the tire and the tool during storage or handling and then damaging the tool by indirect contact with the tire.

3. A tray according to claim 1 wherein the compartment is defined by a plurality of interior walls.

4. A tray according to claim 2 wherein the well is located between the rearmost vehicle support and the rear wall and the compartment is further defined by the rear wall and portions of the side walls adjacent thereto.

5. A tray according to claim 1 wherein the side walls have a height sufficient to contain the side chains during storage and handling of the tray yet permit free access to the side chains and unhindered lateral movement thereof during installation of the tire chain.

6. A tray according to claim 5 wherein the side walls have stacking lugs on their top surfaces and stacking recesses on their bottom surfaces directly beneath the stacking lugs.

7. A tray according to claim 5 wherein the side walls have a relatively greater height defining the well, and a relatively lesser height near the supports.

8. A tray according to claim 7 wherein the greater height is at least as great as the height of the supports and the lesser height is less than the height of the supports.

9. A tray according to claim 1 which further comprises a chain element holder having a passage for receiving, locating, and restraining, from lateral movement parallel to the base, a chain element at or near the end of each side chain opposite the end connected to the U-shaped tool.

10. A tray for installing, on a tire mounted on a vehicle wheel, an oriented tire chain having side chains and cross chains, which tray comprises:

a base having a longitudinal axis and, at opposite ends thereof, a rear end and a front, entrance end;

a rear wall and side walls projecting upwardly from the base;

a plurality of vehicle supports projecting upwardly from the base and being spaced from each other and from the side walls so as to define longitudinal channels and transverse channels for receiving and confining laid-out side chains and cross chains, respectively;

a signal-initiating device comprising a tire-actuated position-indicating switch which initiates a continuing signal when, and only when, the tire is positioned within a zone defined by two predetermined boundaries along the longitudinal axis, so that the device is able to sense and signal the stopped position of the tire as well as the position of the tire while the tire is still moving.

11. A tray according to claim 10 wherein the switch is attached to a vehicle support in such a manner that the switch and the zone are movable parallel to the longitudinal axis.

12. A tray according to claim 15 wherein the spaced surfaces are on a platform rotatable about a horizontal fulcrum in a plane perpendicular to the longitudinal axis.

13. A tray according to claim 12 wherein the frontmost vehicle support is substantially longer than any other vehicle support, in a direction along the longitudinal axis.

14. A tray according to claim 10 wherein the distance between the boundaries defining the zone may be varied by adjusting the switch.

15. A tray according to claim 10 wherein the switch has at least two horizontally spaced surfaces for contacting the tread of the tire, the first of the surfaces being capable of sensing a downward force within the footprint of the tire and the second of the surfaces being capable of sensing an absence of a downward force just outside the footprint.

16. A tray according to claim 10 wherein the switch is located in the frontmost vehicle support.

17. A tray for installing, on a tire mounted on a vehicle wheel, an oriented tire chain having side chains and cross chains, which tray comprises:

a base having a longitudinal axis and, at opposite ends of that axis, a rear end and a front, entrance end;

a rear wall and side walls projecting upwardly from the base;

a plurality of vehicle supports projecting upwardly from the base and being spaced from each other and from the side walls so as to define longitudinal channels and transverse channels for receiving and confining laid-out side chains and cross chains, respectively;

a well for receiving side chains and cross chains which have not been laid out;

interior walls defining a compartment adjacent the well for receiving and protecting, from damage due to the weight of the vehicle, a U-shaped tool having spaced arms connected to the ends of the side chains;

a signal-initiating device comprising a tire-actuated position-indicating switch which initiates a continuing signal when, and only when, the tire is positioned within a zone defined by two predetermined boundaries along the longitudinal axis, so that the device is able to sense and signal the stopped position of the tire as well as the position of the tire while the tire is still moving.

18. A tray according to claim 17 wherein the interior walls defining the compartment are sufficiently high to protect the tool from damage by direct contact with the tire and to keep chain in the well from coming between the tire and the tool during storage or handling and then damaging the tool by indirect contact with the tire.

19. A tray according to claim 17 wherein the well is located between the rearmost vehicle support and the rear wall and the compartment is further defined by the rear wall and portions of the side wall adjacent thereto.

20. A tray according to claim 17 wherein the side walls have a relatively greater height defining the well, and a relatively lesser height near the supports, so as to contain the side chains during storage and handling of the tray yet permit free access to the side chains and unhindered lateral movement thereof during installation of the tire chain, the greater height being at least as great as the height of the supports and the lesser height being less than the height of the supports;